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ABSTRACT

The Goals 2000: Educate America Act offers educators the opportunity to develop a plan for moving all students toward higher levels of learning and to create a broad partnership for activating that plan. This publication describes how teachers can participate in developing a school plan that is consistent with the Goals 2000 legislation. Teachers' involvement in Goals 2000 centers around two issues--the meaning of the phrase "higher standards for all students" and the school-community actions necessary to move every child toward those standards. The document offers suggestions for initiating partnerships and describes how to access relevant information from the United States. Steps include: (1) identify the 10 priorities or essential elements for the school and community and share them with school leaders; (2) compare state standards to those being used in the school and determine areas for improvement; (3) brainstorm with other teaches; (4) join a network of teachers working to improve instruction; (5) create lessons and instructional units based on new or emerging standards; (6) encourage the superintendent and school boarad to apply for Goals 2000 funding; (7) find out about upcoming changes in the school's assessment program; and (8) reach out to parents. Appendices contain highlights of the Improving America's Schools Act, sample standards, a list of voluntary model standards and standards of projects, examples of student work on standardized assessments, and a list of the National Education Goals and objectives. (LMI)

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ED 385 901

Teachers and GOALS 2000:

Leading the Journey Toward High Standards for All Students

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U.S. Department of Education
June 1995

Teachers and GOALS 2000:

Leading the Journey
Toward High Standards for All Students

You've probably heard about GOALS 2000 and wondered, "What does it mean for me, as a teacher? What does it mean for my school and my students?"

Think of it as an opportunity to build support for what you try to do every day in your classroom: inspire students to put their best into learning.

Every day you run into roadblocks. You struggle through all the distractions and problems that walk into class with students, from family difficulties to academic weaknesses, substance abuse to car payments -- and the apathy of many students who are just marking time, going through the motions of learning.

You know, better than anyone, what it's going to take to turn the tide. You know that if all children are to learn the academic knowledge, skills, and habits of mind that will serve them well for a lifetime, learning must take center stage in every family and community in the United States.

Teachers can't make that happen alone. Neither can parents. In the words of an African proverb, "It takes an entire village to educate one child."

The GOALS 2000: Educate America Act offers an opportunity to build that "entire village" commitment. It's a chance for your school, your community, and your state to build that commitment by doing two things: developing a plan for moving all students toward high levels of learning and creating a broad partnership for turning that plan into action.

A Plan and a Partnership

Your state is probably developing a GOALS 2000 plan and a partnership. Your community and school district may be doing so, too. Those plans and partnerships are aimed at helping your school do what only you, other teachers, parents, students, and citizens can do together: chart your own course to excellence.

Excellence cannot be remote controlled, and the leaders in your school, community, and state know it. High performance must be home grown, with support from the community, school district, and state. That's why the lion's share of funding from GOALS 2000 goes to individual schools -- to assist teachers, parents, students, and citizens in building their own comprehensive plan and partnership.

WHY A PLAN?

Maybe your school beefed up math instruction or added an after school program last year. Maybe over the past few years, a dozen improvements have been launched in your school. But are they working together as part of a comprehensive, dynamic, long-term effort, so that all the pieces add up to more than the sum of the parts?

GOALS 2000 offers a chance to step back and ask that question, and then to assemble the pieces into a whole that makes sense -- a comprehensive plan for action.

What ought to be part of any comprehensive plan to improve education? Ten elements seem essential. Drawn from more than a decade of research and practice, these 10 essentials include:

- Teaching and learning, standards and assessments -- including professional development for teachers and other school staff
- Strategies to make sure that all children have adequate learning opportunities
- Use of technology
- Management, governance, and accountability
- Parent and community support and involvement
- Making improvements systemwide
- Promoting grassroots efforts
- Dropout prevention strategies
- Coordination with school-to-work programs
- Milestones and timelines

For more information on these ten elements, see *GOALS 2000: An Invitation to Your Community* -- available by calling 1-800-USA-LEARN or in the U.S. Department of Education's Online Library (directions on Page 23).

It goes without saying that, no matter how good your school plan is, you won't see improvements overnight. Success will take years. Your school will want to take the long view, aiming for continuous improvement year after year.

WHY PARTNERS?

No school, no teacher, or anyone else can do it alone. It will take partners throughout the community stepping forward to help in all kinds of ways.

This booklet offers a few questions and concrete steps for opening doors, recruiting new partners, and starting a discussion among your faculty, parents and students, and the community. It's designed to assist you and your school in getting:

- Parents and families to work with you and your school as never before.
- Citizens, grandparents, college students, and other volunteers to lend a hand at school or with a student near them.
- Employers to look at teacher recommendations, high school transcripts, and portfolios -- actual work of youngsters applying for jobs. You'll also want your school to team up with business partners to build programs offering academic and vocational studies, as well as job-site work experience, so that students will be ready to enter careers with a future.
- Colleges to expect better skills and knowledge of entering freshmen.
- Welfare, housing, and other human services to coordinate with schools, so that all this help makes a difference in children's lives.
- Churches and synagogues, libraries, museums and the arts, hospitals and law enforcement, and other institutions and organizations near your school and throughout your community to ask: "How can we help?"

President Clinton asked Congress for $750 million for GOALS 2000 in fiscal year 1996. Forty-four states and 5 territories have applied for and received funding under GOALS 2000, for which Congress appropriated $105 million in 1994 and $403 million in 1995. Most of the money -- 90 percent in 1995, 1996, and subsequent years -- goes to school districts, to support their comprehensive plans. And most of each school district's funding -- 85 percent in 1995, 1996, and subsequent years -- goes to individual schools, for their own GOALS 2000 plans. A considerable portion of the funding will underwrite training and professional development for teachers and principals with assistance from colleges and universities.

These partners won't just materialize. They'll need to be invited.

GOALS 2000 offers an opportunity to invite partners throughout your community to join your effort to figure out, "How can we move all our children toward high standards?" It's also a chance to be part of a growing network of other schools and communities wrestling with the same question.

TIME FOR TEACHERS

"Every analysis of the problems of change efforts that we have seen in the last decade of research and practice," write Professors Michael Fullan and Matthew Miles, "has concluded that time is the salient issue." (Michael G. Fullan and Matthew B. Miles, "Getting Reform Right: What Works and What Doesn't," *Phi Delta Kappan*, June 1992)

Moving all students toward high academic standards is going to mean making more time for teachers: time to share lessons and ideas with other teachers; time for workshops, professional networks, observing other teachers in action; time for figuring out how to make the change toward high-performance teaching and learning in their own classrooms.

Yet today, as researcher Linda Darling-Hammond points out:

> "Time is rarely available for planning, for working with other colleagues on changes in the school organization, for meeting individually with students or parents, and for working on the development of curriculum or assessment measures -- activities that are not considered part of the teacher's main job. In contrast, teachers in most countries work with large groups of students only 15 to 20 hours per week and spend the other 20 to 30 hours per week working individually with students and parents, planning and consulting with other teachers, and developing curriculum and assessments." (From "Reframing the School Reform Agenda: Developing Capacity for School Transformation," *Phi Delta Kappan*, June 1993)

GOALS 2000 encourages states, communities, and schools to create many more high-quality opportunities for teacher learning and professional development. It does so by asking that professional development for teachers and school staff be part of every plan at every level. And it encourages your school, community, and state to use GOALS 2000 funding to strengthen professional development and preservice learning for teachers and other school staff.

Quality learning experiences for all teachers are essential if we're to move all children toward high academic standards. That's why professional development for teachers and other school staff is central not only to GOALS 2000 but to other federal legislation. The new Elementary and Secondary Education Act (reauthorized as part of the Improving America's Schools Act) creates a new Eisenhower Professional Development Program. This program supports teacher learning not only in science and math but in other core subject areas. Under the new Eisenhower program, classroom teachers and school principals will help decide what kinds of professional development these federal funds will support in their own schools.

Other federal programs can support your state, community, and school's efforts. New flexibility for schools is built into GOALS 2000 and the reauthorized Elementary and Secondary Education Act. This means more latitude for your school to use Title I and other federal resources in ways that make sense for your students. GOALS 2000 and the reauthorized Elementary and Secondary Education Act also provide support for technology. And the School-to-Work Opportunities Act offers resources to help your school and community prepare students for good jobs and career options.

> Staff development "must encourage teachers' conversations about important matters concerning teaching and learning," writes Anne Lewis. "The first question that good staff development leads to is not 'How can I change my students?' but, as one Louisville teacher said, 'How can *I* change?'"
>
> From *Middle School Reform in Progress 1991-1993: Changing the Odds*, 1993, by Ann C. Lewis. Page 114

For information on GOALS 2000 or the reauthorized Elementary and Secondary Education Act, call 1-800-USA-LEARN. For information about the School-to-Work Opportunities Act, call (202) 260-7278.

Principles for Professional Development

In the summer of 1994, Secretary Riley asked Terry Dozier, his Special Advisor on Teaching, to create a Professional Development Team comprised of representatives from program offices across the Department. The team was charged with reviewing and aligning the approximately seventy Department programs supporting the professional development of educators. The team's first step was to hammer out ten principles of high-quality professional development to use as guideposts in designing, implementing and evaluating professional development efforts. These principles have been reviewed favorably by teachers and others. Once finalized, these principles will be used to revise (as needed) the Department's legislative initiatives, programmatic emphases, and grant and procurement strategies related to professional development.

There is an emerging consensus that high-quality professional development is essential to successful education reform. Professional development is the bridge between where educators are now and where they will need to be to meet the new challenges of guiding all students in achieving higher standards of learning. It is our firm belief that high quality professional development strategies must incorporate ALL of the principles stated below. Inadequately addressing any of the principles creates a weak link in the connections that must be made to fully realize the potential of individuals, school communities, and institutions to improve and excel.

Professional Development:

- Focuses on teachers as central to school reform, yet includes all members of the school community;
- Respects and nurtures the intellectual capacity of teachers and others in the school community;
- Reflects best available research and practice in teaching, learning, and leadership;
- Is planned principally by those who will participate in such development;
- Enables teachers to develop expertise in content, pedagogy, and other essential elements in teaching to high standards;
- Enhances leadership capacity among teachers, principals, and others;
- Requires ample time and other resources that enable educators to develop their individual capacity, and to learn and work together;
- Promotes commitment to continuous inquiry and improvement embedded in the daily life of schools;
- Is driven by a coherent long-term plan that incorporates professional development as essential among a broad set of strategies to improve teaching and learning; and
- Is evaluated on the basis of its impact on teacher effectiveness, student learning, leadership, and the school community; and this assessment guides subsequent professional development efforts.

RAISING STANDARDS

It's no secret: Many children in this country can learn more than they currently do.

Helping children learn more begins with higher expectations. But is it realistic to expect all students to reach high standards?

Sharon LeBlond, a Chapter 1 teacher in rural Norway, Maine, tells about low-performing students who achieved dramatic gains on state assessments. It happened after she began using the National Council of Teachers of Mathematics standards to guide improvements in instruction. (Satellite Town Meeting, U.S. Department of Education, September 1993) Eileen Barton of Chicago's Sullivan High School says that "By requiring that all our students demonstrate the competencies we had earlier demanded from only a few, we found they not only could meet our expectations but were willing to work harder than ever before to do so." (Horace, Coalition of Essential Schools, Jan 93)

It's not just currently low-performing students. Many students who now earn decent grades must be challenged to stretch for the higher levels of learning that they are capable of reaching. Consider: Only 7 percent of our students take the Advanced Placement in biology, while more than four times that percentage of students in other countries take comparably challenging biology tests -- 31 percent in England and Wales, 43 percent in France, 37 percent in Germany, and more than 40 percent in Japan. How many students *pass* these exams? Between 25 percent and 36 percent in the other countries. In the U.S., just 4 percent pass the AP in biology. (American Federation of Teachers' "Making Standards Count: The Case for Student Incentives," May 1994)

Many teachers agree: All students can learn at much higher levels, and we must expect them to. But our higher expectations must not stop with students. We must also expect more of ourselves -- more of teachers, more of parents and families, more of employers, policymakers, and citizens.

GOALS 2000 makes it clear that everyone has a role to play: all of us must do our part. Many seem ready to do so. GOALS 2000 is supported by every major education, parent, and business group in the United States. These are just a few of the many groups that support GOALS 2000:

National Parent Teacher Association
National Education Association
American Federation of Teachers
The Business Roundtable
Chamber of Commerce of the United States
Council of Chief State School Officers
National Alliance of Business
National School Board Association
National Association of Elementary Principals
National Association of Secondary Principals.

> GOALS 2000 "is the most significant piece of education legislation we've ever had," writes Albert Shanker, President of the American Federation of Teachers. While "in and of itself, [GOALS 2000] won't solve the problems of our education system...it provides a structure without which we can't begin to solve them...."
>
> *The New York Times*, April 24, 1994

Teachers must take on a number of leadership roles, and not just in "implementing plans," though that's important. GOALS 2000 says that each planning panel at every level -- state, district, and school -- must include classroom teachers. This means teachers are to be involved in the creation of plans. It means your ideas are needed and are important to developing plans that will work.

There are other challenges where teacher leadership is important. Maybe the need to strengthen family involvement or students' writing is pressing in your school. Or maybe there is a difficult-to-teach concept or skill for which you've developed an unusually effective approach. Such needs in your school and breakthroughs in your classroom point to prime opportunities for you to step forward.

> The schools we need require different habits of work and habits of mind on the part of teachers -- a kind of professionalism within the classroom few teachers were expected to exhibit before. In addition, to get from where we are now to where we need to be will require teachers to play a substantially different role within their schools as well as in public discourse. Teachers need to relearn what it means to be good in-school practitioners, while also becoming more articulate and self-confident spokespeople for the difficult and often anxiety-producing changes schools are expected to undertake. If teachers are not able to join in leading such changes, the changes will not take place."
>
> Deborah Meier, *Teachers College Record*, Summer 1992

But regardless of those circumstances, there is probably one challenge where leadership from you -- and from teachers everywhere in the United States -- is urgent. It is a challenge that no state, community, or school can take on effectively unless teachers help lead the way. So important -- and so central to teachers' involvement in GOALS 2000 -- is this challenge that the remainder of this booklet is organized around it.

This challenge centers around two questions:

- What do we mean when we say "high standards?"
- What must be done -- in this school and in our community -- to move every child toward those standards?

"How do you determine, in an age of information overload, what teachers will teach?" asks Gloria Sesso, a U.S. history teacher in Dix Hills, New York. "What do you include and what do you *not* include?" Standards offer criteria for making that decision, says Sesso.

WHAT DO WE MEAN BY "HIGH STANDARDS FOR ALL STUDENTS"?

Kentucky, California, Vermont, and other states are reorienting their school systems around this challenge. They're trying to move *all* children, not just a few, toward high standards of academic learning.

This is what the President's education initiatives are about. GOALS 2000, the School-to-Work Opportunities Act, the reauthorized Elementary and Secondary Education Act, and others aim to support schools, families, and communities in doing the most important work in America: helping all children learn what they need to know and be able to do so that, as adults, they'll be able to get good jobs, be good citizens, and live good lives. By "all children," we mean exactly that -- students from diverse racial, ethnic, and cultural backgrounds; students with limited English proficiency or from migrant families; students from low-income homes; students who have special needs and disabilities; and students who are academically talented.

This is the defining challenge for American education in the remainder of this century -- helping all children learn what they need to know and be able to do. *But what, exactly, do all students need to know and be able to do?*

Most states are answering that question by developing or revising their standards (sometimes known as "curriculum frameworks") in core subject areas. They're using the expertise of classroom teachers, parents, scholars, administrators, and others to create standards that meet the needs of their own state. These state standards will serve as blueprints for schools, districts, and others developing classroom materials and lessons. These standards will also serve as guidelines for effective teacher preparation, professional development, and certification.

In creating their own standards, many states are drawing on model voluntary standards developed by national professional associations. Such model standards now exist in mathematics, the arts, geography, and civics. They're being developed in science, foreign languages, and other disciplines. (For more information on projects that are developing model standards, please see Appendix III.)

> High school textbooks list 120 different technical words about the cell that students are often required to memorize, according to F. James Rutherford, director of the American Association for the Advance of Science's "Project 2061." Rutherford says that "We found 11 of the words were sufficient. If you concentrate on what goes on in the cell, how it relates to the system, you come out with a deeper understanding."
>
> Statement at the release of *Benchmarks for Science Literacy*, American Association for the Advancement of Science, Project 2061, 1993.

When these standards -- especially when your *state* standards -- are completed, parents, colleagues, and others are going to wonder:

> How do these new standards differ from what's now used in our schools? What will student work look like if students are advancing adequately toward those standards? What will instruction look like under the new standards? What about teachers' work and new roles? What about the roles of other adults -- parents, administrators, employers, and citizens?

Teacher leaders in every school and every community in the United States are needed to step in and answer these questions. As a teacher, you have something to offer that no one else has -- a commitment to children, knowledge of your subject, and experience in bringing the two together in the classroom every day of the school year.

You also know what high-standards student work is. Selecting high-quality pieces of student work and sharing them with colleagues, parents, community members, and other students can help clarify the level of achievement you expect of students.

As a teacher leader, you have something else that must drive your school and community's plans: a clear picture of how teaching and learning can change to move all children toward high standards.

That picture must be drawn, in part, from your own experience. It must also come from the vision emerging from new high standards: students using basic skills, academic knowledge, and habits of mind -- from across disciplines -- to think, to define problems and solve them, and to communicate.

To present a compelling picture of "where teaching and learning in our school needs to go," you must get thoroughly familiar with the standards being developed, and in some cases already available, in subjects you teach. That means getting a copy of the standards being developed by your state, by your district (if your district is developing standards), and by professional associations in your discipline. It means studying those standards and asking yourself, "How do my expectations for students compare with those set forth in these standards? What about the expectations of my colleagues, our students and parents, and our community?" It means using these and other questions to start a serious discussion in your school and community about "how we can help all students learn what they need to know and be able to do."

Standards are also being developed for nearly two dozen occupational areas. These "skill standards" will lay out what students need to know and be able to do to enter various occupations and succeed -- occupations such as electronics, health care, metalworking, chemical process industries, human service, computer-aided drafting and design, and others.

Mathematics

Standard 12: GEOMETRY

From the National Council of Teachers of Mathematics' *Curriculum and Evaluation Standards for School Mathematics*.

"In grades 5-8, the mathematics curriculum should include the study of the geometry of one, two, and three dimensions in a variety of situations so that students can:

- identify, describe, compare, and classify geometric figures;
- visualize and represent geometric figures with special attention to developing spatial sense;
- explore transformations of geometric figures;
- represent and solve problems using geometric models;
- understand and apply geometric properties and relationships;
- develop an appreciation of geometry as a means of describing the physical world."

Note: NCTM created about 13 standards like this one for three grade clusters (K-4, 5-8, 9-12). That's 40 standards, in all, plus explanations and sample learning activities. NCTM sees these standards as "a coherent vision of what it means to be mathematically literate." They are designed to be used to "guide the revision of the school mathematics curriculum" and assessment.

Tom Welch, a foreign language teacher at the time, served on the task force that developed Kentucky's Arts and Humanities standards. "I have never been involved in a more frustrating process," he says. "But it was the most tremendous professional growth opportunity I have ever had."

U.S. Department of Education, 1993

Once you're familiar with standards being developed in your subjects, *if* those standards make sense for your students -- if they point in the direction you believe teaching and learning must change -- then *use them* to make change happen. You might select a few standards to show colleagues, parents, teacher representatives, the department chair, curriculum specialist, students, and others. Present them at a meeting of your department, faculty, or parent organizations. Talk with your principal or superintendent about sitting down with local news reporters to help them understand. Write an opinion-editorial piece for the newspaper on "high standards and what must change if all students in our community are to reach them."

Many standards offer ideas for lesson plans. Begin tailoring those that are right for your students into instruction in your classroom. Begin your search for other lessons that can help all your students learn what they need to know and be able to do.

One way teachers are making an impact on policy-making is through "teacher forums." Begun in South Carolina by Terry Dozier, a history teacher serving as special advisor to Secretary Riley, the U.S. Department of Education's first National Teacher Forum was held in November 1993. Since then, teacher forums have been organized by teachers in 12 states, and teachers in 10 other states are planning such forums. For one forum, 48 teachers from across South Dakota gathered in Aberdeen to discuss standards and how to help all students reach them. A member of the state board of education who stopped by was so impressed that he arranged for the teachers' recommendations to be presented to the entire state board. Best of all, recalls forum organizer Donna Fisher, was what a teacher said afterward: "I'd just about decided I didn't want to teach in South Dakota any more," she told Fisher. "Our salaries are the lowest in the nation. Every time we tried to change the old ways or to improve standards, we were being hassled by critics. But now, after meeting all those wonderful teachers all over the state who care as much as I do, how can I quit? I've got to stay and do what I love for those kids -- right here in South Dakota."

U.S. Department of Education, 1994

How Can We Move All Students Toward High Standards?

Developing a clear picture of what "high standards" mean is a first step. But a plan for moving all students toward them will not automatically follow.

Creating such a plan will take some soul searching. Conflict and controversy will be inevitable. Your school will want to keep its eye on the prize -- and keep individual agendas moving toward the larger common ground -- by continually coming back to the question: *What is best for all our students?*

Your school will want to ask a number of questions as it develops its plan. Your community and school district will also be asking questions as they develop their plan. Many of those questions may be found in *GOALS 2000: An Invitation to Your Community*. (Available by calling 1-800-USA-LEARN.)

> "External standards change the student-teacher relationship," write researchers Douglas J. MacIver and David A. Reuman. "Because [individual] teachers can raise or lower requirements at their discretion, students -- especially those who feel overchallenged -- expend great effort trying to 'wear the teacher down' and negotiate a lessening of demands." This battle of requirements can be defused, the authors propose, "by applying external standards-setting and performance assessment, which would allow each teacher to function more like a coach." A coach "seldom has to fight the battle of requirements with his or her players" because players must perform at levels determined not by the coach, but by the prowess of other players. "Similarly, one reason that advanced students work more and complain less in AP classes...[is that] students know that the AP test is coming.... In fact, the teacher is doing the students a favor by pushing them, and the students realize this."
>
> "Giving Their Best: Grading and Recognition Practices That Motivate Students to Work Hard," *American Educator*, American Federation of Teachers, Winter 1993-94.

These questions cannot be answered without your insights and experience and those of other classroom teachers. These questions include, but aren't limited to:

- What am I now doing in my classroom that can help students reach these standards? What lessons, activities, instructional approaches, or materials are unusually effective?
- What are we already doing in this school that can help all our students reach high standards? What are our strengths -- efforts and programs we do well and can build on?

Teachers at the Accelerated Learning Laboratory (ALL) School rely less on textbooks and more on projects, so that their K-8 students learn to solve problems, integrate knowledge in core disciplines, and apply academic skills to the real world. In one interdisciplinary project, students in grades 3-5 simulated a 10,000-mile bicycle trip across Africa. They learned about the geography of Africa through telephone conversations with adventurers who had actually made the trip, and they created a scale map of the continent. Students learned to calculate time, rate, and distance -- and to read odometers and plot changes on a map -- while taking turns covering the relative distances in five-minute intervals on stationary bicycles.

Implementing Schoolwide Projects: An Idea Book, U.S. Department of Education, March 1994.

- Are there other teachers in my school who are helping all students learn at unusually high levels? How are they doing it? Are they using technology, involving parents and families, integrating work-based and school-based learning, enlisting citizens as volunteers, tapping other resources in the community, using portfolios of student work, or other approaches that are particularly effective?

- Are there other schools that we could learn from -- schools achieving remarkable results in:

  - Reading, writing, literature, and language arts; geography, history, the arts, and civics; science and mathematics; and other core subject areas?

  - Preparing students for careers in health, electronics, and other occupational areas?

  - Including disabled students in regular instruction?

  - Offering Advanced Placement courses, the International Baccalaureate program, or other advanced instruction?

  - Using satellite-delivered instruction, Internet, or local computer networks and online resources, instructional television, multimedia, and other technologies?

Studying the American Revolution means more than just reading about it at Fullerton Union High School in Fullerton, California. Students form groups -- the Rebels, Loyalists, Indians, French, British, Blacks. They debate the causes of the Revolutionary War, play the roles of delegates at a convention, and construct their own constitution. Then they e-mail their proposals to the teacher, who merges and distributes the ideas for use in debate. The program, "Restructuring Social Science Via Progressive Technology," seems to work. Participating students earned higher test scores than their peers in traditional U.S. history courses.

From *OERI Bulletin*, Spring/Summer 1993

You may want to ask: What roadblocks stand in the way of our school realizing similar results? Which of these obstacles ought to be priorities in our school plan? (Note: GOALS 2000 encourages schools to request waivers from policies that stand in the way of their plans.)

> "In Pinellas County, Florida...several schools are now closing classes early one afternoon a week -- to give teacher teams a solid chunk of uninterrupted time for in-depth cooperative planning. This radical departure from normal scheduling enjoys widespread community support -- because the change was made with community needs very much in mind. The Pinellas effort reflects those needs. Kids can stay on-site at school, in a special extended time child care program. That's the sort of school-community cooperation we...need to nurture all across the United States."
>
> Keith Geiger, President of the National Education Association. From NEA Today, November 1994.

When asking those questions, your school will want to keep an eye on the bottom line -- student learning. You can encourage that by raising a few questions:

- What do middle or high school teachers say about the preparation of our elementary students? How do students perform after graduating from our school? What do employers say about the preparation of our graduates -- do we go out and ask them? Do students headed for college end up needing remedial courses in reading, writing, or mathematics?

- Are our students learning the basics? How well do students perform academically after taking my class? Do other teachers see particular weaknesses, as well as strengths, in the preparation of my former students?

- What academic weaknesses and strengths emerge from assessments taken by students in our school, and students in my own classes? Are student assessments in our school of a high quality? Do they measure what we teach students? Does our school use results from assessments to improve instruction?

- Does our school offer a school-to-work program? Does it include learning at worksites that is coordinated with learning at school? Are efforts to connect learning at the worksite and at school intensive and ongoing?

- When our school district announces student assessment results, do we use this opportunity to stir our faculty, students, families, and community's commitment to improving educational performance? Do we find ways to redouble this desire for improved learning, even if most of our students are performing above average?

You'll want to examine some of the reasons behind the patterns of student performance in your school:

- How hard are our students working at schoolwork? Are we challenging *all* students to work hard and do their best? How much reading and homework do we expect of students, and how much do they actually do?

- Do we require *all* students to read and write, listen and speak every day? Do we encourage every student to think mathematically, solve problems scientifically, reason historically, imagine geographically, see artistically, read critically, and communicate clearly?

- What additional opportunities do we provide for children who need extra time and assistance? What opportunities do we provide for enriching and extending learning for all students?

- Are the instructional materials in our school and in my classroom adequate?

"I don't find homework to be a big problem," writes Woodland Junior High School English teacher Rosemary Faucette. "I set up tight boundaries right from the start. I tell students I expect 20-30 minutes from them a night. I often make `homework calls' early in the year. I call one student from each class a night, asking them if they have done their homework yet. If yes, I ask them to read me something. If no, I ask them when I can call back. Word travels quickly that I call students at home! This takes time, but it is worth it. But I only have to call those first few weeks...."

From an online discussion among teachers on the Internet

Research and common sense tell us that students learn better if they study and work hard at it. Yet national data and everyday experience tell us that many American students are not working hard at learning.

- Most 8th and 12th graders admit that they read no more than 11 pages a day, at school and at home, in textbooks and novels and other materials, for all classes combined.

- Most 12th graders say they do less than one hour of homework a day. (Their future international competitors do up to four times as much!)

National Assessment of Educational Progress

- What incentives do our students see for working hard at learning?

- How many of our students are working part-time during the school year? How many are working 20 hours a week or more? Is that much work interfering with their studies and performance in school? Says South Dakota journalism teacher Donna Fisher, "I want business people and educators to sit down and talk about Johnny's 40-hour work schedule. He can't perform well academically if he can't stay awake."

"Inclusion" is not just a buzzword or theory at Hawthorne Elementary School. This school in Sioux Falls, South Dakota, is able to include children with significant needs in regular classrooms because of three ingredients, according to third grade teacher Julie Ashworth: vision, training, and support. Parents, teachers, administrators, and students share a vision of "how inclusion can work." Teachers receive training in curriculum adaptation and modification for individual students, and students receive ongoing disability awareness training. Teachers are supported by a team that includes a speech and language therapist, a special education teacher, and a part-time integration specialist. "This team approach," says Ashworth, "is essential to making inclusion work."

Improving student performance in core subjects -- including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography -- is the driving force behind the National Education Goals.

"We need to convince students there's a payoff for high academic achievement," says Joe Kerata, a science teacher at North High School in Eastlake, Ohio. "Right now, the strongest influence on them is their peers."

GOALS 2000 Teacher Forum,
November 1993, Washington, D.C.

But don't limit your thinking to the two goals on performance, the Student Achievement and Citizenship Goals and the Mathematics and Science Goal. Your ideas are needed on *all* the National Education Goals:

- Are children entering kindergarten and first grade adequately prepared?

- How many students in our school are dropping out? How many of my own students leave school without a diploma? What are we doing to keep these students in school and help them reach high academic standards?

- Do some parents and other adults in our community need help developing their literacy or job skills, or proficiency with English?

- Is our school disciplined, orderly, and conducive to learning? Do students and teachers feel safe at our school? Is it free of alcohol and drugs?

- Is time set aside during the school year and summer for teachers in our school to share ideas, plan lessons together, and learn from each other? Are there sufficient opportunities for my colleagues and me to participate in meaningful professional development? Are there certain instructional approaches and techniques that I would like to learn how to use more effectively? Am I able to take advantage of professional development opportunities such as the state Geographic Alliance, the state or local Writing Project, workshops and networks offered by the state Council of Teachers of Mathematics, National Science Teachers Association or the Association for the Advancement of American Science, and other professional associations? Are there opportunities to collaborate with scholars and researchers? Am I able to participate in online discussions among teachers using computer networks connected to the Internet? Also, does my school offer plenty of assistance and support to *new teachers* so that their first year in the classroom is a success for them and their students?

Each summer in Iowa, some 250 teachers create a five-day lesson plan for science, which they pilot test in their own classrooms that fall. But that's just the beginning of the Iowa Chautauqua Program. Teachers then spend a long weekend together discussing the performance of their pilot units. Over the winter, they develop and use a longer unit involving at least 20 days of instruction. In the spring they meet again over a long weekend to plan more extensive changes in school programs and teaching strategies. Throughout this process, teachers receive on-going support -- from central staff, lead teachers, scientists, and fellow participants -- through a newsletter, special memoranda, monthly telephone contacts, and classroom visits.

U.S. Department of Education, 1993

"Parents are everywhere, helping students in halls and classrooms" at Elm Street Elementary School, says kindergarten teacher Nancy Royal. It's no accident. This Newnan, Georgia, school reaches out to parents in many ways, and early. When a baby is born, a teacher or parent volunteer goes to the hospital to deliver a "welcome letter" and give the mother a packet of information on parenting, infant development, community resources, and more. For parents of 2- to 5-year-olds, teachers created a video series on how parents can promote language, math, and motor skills. Teachers go to local job sites each month to conduct "effective parenting" workshops and provide individual consultations for employees. So well received have these workshops been that the school district plans to extend them throughout Coweta County Schools.

U.S. Department of Education, 1994

- Does every child in our school and in my classroom have someone at home who is encouraging him or her to do homework and work hard at learning? Are we reaching out to enlist every parent in a partnership for learning? Does every family make sure its children attend school regularly and arrive on time each day?

For a complete list of the National Education Goals and Objectives, please see Appendix V.

These questions can help your school identify obstacles -- and opportunities -- in the road to high standards for all students. The process of creating a plan can help your school recognize its strengths and weaknesses, and set priorities. Your faculty won't be able to tackle each priority on its own. New partners will be needed, partners from throughout your community.

Many partners want to help. Steve Piippo, a teacher at Richland High School in Washington, found that sometimes to get help you simply have to *ask* for it. He created a course in Material Science and Technology...

> "about seven years ago when I was teaching an old-fashioned materials course. Students were asking why certain materials behave certain ways -- Why is glass brittle? Why does metal stretch? These were pretty sophisticated questions that I needed help answering. So I contacted Battelle Pacific Northwest Laboratories. Battelle has an entire group of materials people. That led to a partnership, and from there the curriculum has continued evolving." The partnership for Piippo and his students continued growing to include Boeing Commercial Aircraft Corporation, Corning Glass, NASA, local industry, the community college, and the university.

U.S. Department of Education, 1992

A Partner -- The U.S. Department of Education

No one has a recipe or roadmap. What works in your school will be different from what works in a school in another neighborhood. But we can all learn from each other.

Your community and state are probably building a network of education-minded individuals and change leaders, and so is the U.S. Department of Education. Call 1-800-USA-LEARN to receive our monthly newsletter, announcements about our monthly Satellite Town Meetings, information about our Online Library, Internet discussion groups, and more. You may also want to ask for information about:

- GOALS 2000 -- a "progress report" and a handbook for your community are available.
- The Improving America's Schools Act, which reauthorizes the Elementary and Secondary Education Act. (See Appendix 1)
- The Secretary's new Family Involvement Partnership for Learning, which is designed to promote greater family participation in children's learning.
- *Moving America to the Head of the Class: 50 Simple Things You Can Do.*

"What the family does is more important to student success than family income or education," says a recent report by the U.S. Department of Education. Released as part of Secretary Riley's Family Involvement Initiative, the report, *Strong Families, Strong Schools*, is based on 30 years of research on parent and family involvement. It also suggests what schools, businesses, communities, and parents can do to help strengthen families and family-school partnerships. The report is available in our Online Library (see directions on Page 23). Or you can order a copy by calling 1-800-USA-LEARN.

You may also want to find out about:

- The *Community Toolkit* for organizing your community to reach the National Education Goals -- from the National Education Goals Panel. Their number is 1-800-98-GOALS.
- School-to-work programs, including fact sheets on the School-to-Work Opportunities Act. The School-to-Work office can be reached at 202-260-7278.

The United States Department of Education produces hundreds of publications each year. Some, such as *A Teacher's Guide to the U.S. Department of Education*, may be of particular interest to you.

If you have access to Internet, you can call up many of those publications on your computer through the Department's Online Library. Run by the Office of Educational Research and Improvement, the Online Library features electronic "shelves" of information on GOALS 2000, school-to-work, the reauthorized Elementary and Secondary Education Act, family involvement, technology, education research, promising programs, and much more.

To access our Online Library, you must have certain software -- either Gopher client software or World Wide Web client software (such as NCSA Mosaic or Lynx). Or you must be able to "telnet" to a public access client elsewhere.

If you are using a Gopher client, point it to:

gopher.ed.gov

or select "North America-->USA-->General-->U.S. Department of Education" from "All/Other Gophers in the World."

If you are using World Wide Web (WWW), point your WWW client to our uniform resource locator (URL):

http://www.ed.gov/

Another way to access the library is by using file transfer protocol (FTP). To do this, FTP to:

ftp.ed.gov (logon anonymous).

E-mail users can find out what Department publications and information are available through e-mail by sending an e-mail message to:

almanac@inet.ed.gov

In the body of the message type:

send catalog

(Note: Avoid the use of signature blocks and leave the subject line blank.)

So, What Can I Do?

There are countless ways to get started. However you proceed, you'll want to let your principal, your school-site council, and others know about it. That way, your efforts can be connected to your school's overall effort.

But you don't have to wait for a plan to be announced. Here are just a few ways you can get started now:

- Look over the questions in this booklet. Identify the 10 most important things your school and community must do to move all students toward high standards. List these 10 priorities and share them with your principal, department chair, school management committee, or others.

- Get copies of the state standards and other academic standards being developed in subjects you teach (see appendix 3). Study them. Compare them to the standards being used in your school. Let your principal, department chair, and others know how the standards in your school measure up. Share examples of the standards with them.

- Identify what you and other teachers are already doing that can help students reach the new or emerging standards in subjects you teach. Form a group of teachers for swapping best lessons and teaching ideas that can help students reach those standards.

- Join a network of teachers working to improve instruction in your subject area -- networks such as the regional networks for portfolio assessment in Vermont and the professional development networks organized around curriculum frameworks in California. If your state hasn't organized such networks, encourage your state board of education and other state-level decision-makers to do so.

- Create lessons and instructional units based on new or emerging standards. Team up with another teacher to develop interdisciplinary lessons. Ask your librarian about new materials that may serve as resources for helping students reach the standards.

"Integrating academic and vocational learning" is the way things are done at the Health and Bioscience Academy in Oakland, California. When students learn hand-washing techniques in biology lab, they discover in English class why those techniques are important -- by learning about bacteria and an historic epidemic. In physiology, students select and research "teen health issues" and share the results in a newsletter, which they write for other students.

Building Bridges from School to Work, U.S. Department of Education, April 13, 1993

- Display student work, and not just inside your school. "Students need audiences bigger than their teachers," says teacher Joe Miller, a theology and psychology teacher at Maryknoll High School in Honolulu. Football games, high school plays, and concerts often draw sizable audiences of parents and community members. "People like to see their kids perform," says Bob McCarthy of the Coalition of Essential Schools. "Now we have to make *academic* exhibitions into performances worth coming to look at." (Horace, Coalition of Essential Schools, May 1993)

- Find out if your school district has applied for state GOALS 2000 funding. If it has, find out how you can help. If it hasn't, encourage your superintendent and school board to apply.

- Contact the teachers who are serving on your state and local planning panels. Let them know that you're interested. Offer them your support and assistance.

- Ask your technology or media specialist about any new equipment that may have arrived in your school. Do you have access to a computer that's connected to the Internet? If not, is there a library, university, or another organization that might help you get access?

- Look for professional development opportunities from nearby universities, professional associations, teacher networks, and other organizations. Collaborate with a researcher at a nearby university.

- Find out about upcoming changes in your school's assessment program. Anticipate the changes. Begin using, or improve your use of, portfolios of student work by collaborating with other teachers who also rely on student portfolios.

- Reach out to parents. Look for ways to bring family members into your classroom; harness their knowledge and experiences as a resource for your students. And encourage parents to look not just at the report card, but at their children's actual work. Show parents portfolios of their child's work -- what one teacher calls "living report cards" -- and ask for their feedback. Send home activities and ways for families to enrich and extend what their children are learning in your classroom. Let parents know what they can do at home to help their children do well in your class. Studies suggest that more than 80 percent of parents want you to do this -- parents of children of all ages, including high school.

In Tucson, teachers at Hollinger Elementary School visited 150 families in their Mexican-American community and "mapped" the knowledge and expertise of those families. Teachers then developed hands-on lessons based on families' expertise, which included farming, childcare, construction, auto repair, international commerce, and more. A 5th grade teacher, for instance, drew on the expertise of a parent to develop and teach a unit on clothing that included studying clothing ads, analyzing labels, learning about fashions and design through history, examining patterns of weaving, and experimenting with fabric durability. Another teacher used the candy-making and selling activities of a student's family as the basis for a unit that incorporated study of geography, nutrition, computation, graphing, and language arts. These and other units drew on families' strengths to move students toward district objectives across academic subjects.

An Idea Book: Implementing Schoolwide Projects, U.S. Department of Education, 1994

- Ask your principal and vocational-technical teachers about your school or community's plans to improve or build a full-blown school-to-work program. Figure out how you can help, perhaps by incorporating work-based learning into classroom instruction.

- Recruit new partners. Ask your principal about getting a volunteer or two to help out in your classroom. Look around your community. There may be senior citizens or volunteer organizations nearby just waiting to be asked to read and talk with children. Is there a professional association, university, or company that might provide guest speakers on a topic you teach? Is there a local historian, journalist, or other professional who can talk about his or her work and how it relates to what your students are now studying? Are there parents -- or students -- with expertise in technology that can help you learn to use a new CD ROM player that came in over the summer, or a computer that's just been hooked up to the Internet? Can your librarian show you any new materials, books, or software related to subjects you teach?

Those are just a few ideas. They're designed to help you start asking some questions about what your school and community are already doing.

Asking the right questions may put you ahead of the curve in your school or community. Most teachers have yet to read drafts of standards being developed at any level. Few parents and citizens have even heard of them.

There will be exceptions. There will be a colleague or parent, a business person, or someone else who is familiar with the emerging high standards and the opportunity they present.

Find these individuals. Team up with them and, together, start the discussion about "high standards, and how our school and community can move all students toward them."

You have dreamed for years of helping *all* your students develop their gifts, so that every one of them reaches his or her full potential. You have dreamed of a day when that might be possible.

Now is the time to rally your school and community around that dream. This is your chance to enlist other teachers, parents, and citizens for a journey -- toward high standards for every student.

Think of it as a journey that cannot go forward without leadership from you, and from thousands of other teachers across the country. Think of it as a journey on which the very future of America depends. Because it does.

Appendices

I. The Improving America's Schools Act: Reauthorization of the Elementary and Secondary Education Act (Highlights)

II. Sample Standards

III. Voluntary Model Standards and Standards Projects

IV. Student Work

V. National Education Goals and Objectives

Appendix I

The Improving America's Schools Act of 1994
Reauthorization of the Elementary and Secondary Education Act

The Improving America's Schools Act of 1994, the reauthorization of the Elementary and Secondary Education Act (ESEA), provides nearly $11 billion to school districts and schools to improve teaching and learning, primarily for economically disadvantaged students. The overhauled ESEA encourages states and schools to set high academic standards for students' academic achievement, addresses the problems of school violence and drug use, provides resources for professional development for teachers, creates incentives for educational innovation through charter schools and improved access to technology, eliminates federal red tape, and redesigns federal programs to strengthen and reinforce state and local school reforms.

Highlights of the ESEA reauthorization include:

Title I: Helping Disadvantaged Children Meet High Standards

At $6.9 billion, Title I is the largest program in ESEA. It affects more than 50,000 schools and 5 million children in high poverty areas. The new Title I focuses its resources on improving teaching and learning to help students reach higher levels of achievement. It encourages innovation by allowing funds to be used for extended-day programs, effective transitions from preschool to school, increasing parental participation, and schoolwide programs.

Title I programs will be developed around challenging state standards for what students should know and be able to do. Accountability is guaranteed through the use of high-quality state assessments for measuring students' progress toward these standards. These two fundamental changes in Title I — the role of high academic standards and the use of state assessments — will ensure that Title I is an integral part of a state's reform efforts rather than another add-on federal program.

Safe and Drug-Free Schools

Effective instruction and learning require an environment that is both safe and drug-free. The Safe and Drug-Free Schools and Communities Act provides $481 million to create a comprehensive effort to deal with problems of school violence and drug use. The act provides greater flexibility to local school districts in designing programs, which can include comprehensive school safety strategies, coordination with community agencies, implementation of violence prevention activities and the installation of metal detectors and hiring security guards.

States and local school districts will be required to measure performance and to report publicly on progress toward meeting their goals and objectives. A new national evaluation system will be established to assess the impact of the act on youth, schools, and communities.

Professional Development

Professional development for teachers, principals, and other school staff is critical to provide the instruction and learning environments necessary to help all students reach higher levels of achievement. The new Eisenhower Professional Development program will support sustained, intensive, high-quality professional development tied to high academic standards. The program will require school districts and schools to develop plans for improving teaching. Most of the funds will go to providing district- and school-level teacher improvement efforts.

The Eisenhower Professional Development Program recognizes the different needs of schools and provides teachers and principals with important roles in determining what kind of training they need. The effort moves away from short-term, one-time professional development activities and toward more sustained, long-term efforts that become integrated into the daily life of the school.

Innovation and Flexibility

The Improving America's Schools Act provides support for the development and initial implementation of public charter schools. Charter schools seek to improve school and student performance by replacing rules-based governance with goals-based accountability. The Public Charter School Program will make grants to charter schools to design and plan their educational program and to describe the educational results the school will strive to produce.

There are many other ways in which the Improving America's Schools Act provides greater flexibility to states, school districts and schools in the implementation of ESEA programs. States and local school districts will be allowed to consolidate their administrative funds and to administer the funds in a coordinated way without having to keep detailed records. If states and local school districts discover statutory or regulatory requirements that inhibit the implementation of effective programs, they will be able to request waivers.

Appendix II

Sample Standards

Mathematics

Standard 11: STATISTICS AND PROBABILITY

From the National Council of Teachers of Mathematics' *Curriculum and Evaluation Standards for School Mathematics*.

"In grades K-4, the mathematics curriculum should include experiences with data analysis and probability so that students can:

- collect, organize, and describe data;
- construct, read, and interpret display of data;
- formulate and solve problems that involve collecting and analyzing data;
- explore concepts of chance."

Note: NCTM created about 13 standards similar to this for three grade clusters (K-4, 5-8, 9-12). That's 40 standards, in all, plus explanations and sample learning activities. NCTM sees these standards as "a coherent vision of what it means to be mathematically literate." They are designed to be used to "guide the revision of the school mathematics curriculum" and assessment.

Science

From *Science Framework for California Public Schools Kindergarten Through Grade Twelve*. Sacramento, 1990

Section D: Energy Sources and Transformations

What is energy? What are its characteristics?

Kindergarten Through Grade Three

Forms of energy can be classified in several ways, depending on our purposes. Energy is manifested when we drop a ball, strike a match, make waves in a bathtub, clap our hands or rub them briskly together, or turn on a flashlight. Each form of energy has its own characteristics. For example, a given material will transmit some forms of energy and absorb or reflect others. A sheet of thick paper transmits sound but not light. A stretched sheet of plastic wrap transmits light but not water waves. Heat is a form of energy often produced by conversion from other forms, as can easily be demonstrated by the warming of a dark object exposed to sunlight. The capacity of waves to carry energy can be demonstrated by observing how water waves (for example, in wave tanks) set floating objects into motion. Energy is required when work is done on a system or when matter changes its form. [Energy, Systems and Interactions, Patterns of Change]

Grades Three Through Six

Energy passes through ecosystems in food chains mainly in the form of the chemical energy supplied to each organism by the nourishment it consumes. All organisms convert some of this energy into heat. Animals also convert some of it into mechanical energy. Green plants convert light energy into chemical energy by means of the photochemical process called photosynthesis. (See Chapter 5, Section A. Living Things.) [Systems and Interactions, Energy]

Note: The purposes of the California Science Framework are to: "(1) establish guidelines and provide direction to help districts revise their curricula, evaluate their programs, assess their instruction, and develop instructional strategies; (2) serve as a resource for preservice and in-service education of teachers and administrators; (3) provide direction to publishers for the development of textbooks and instructional materials and to reviewers for selecting instructional materials and testing programs; and (4) make information on curricula available to parents and the general public."

Reading and Writing

From *Colordao Draft Model Content Standards. Final Discussion Draft. Standards and Assessment Council, Denver, Colorado. December 1995*

1. Students write and speak for a variety of purposes and for diverse audiences.
2. Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling.
3. Students read and understand a variety of materials.
4. Students apply thinking skills to their reading, writing, speaking, listening, and viewing.
5. Students read to locate, select, and make use of relevant information from a variety of media, reference, and technological sources.
6. Students read and recognize literature as an expression of human experience.

Standard 3

Students Read and Understand a Variety of Materials.

In order to meet this standard students will

- use comprehension strategies such as previewing, predicting, inferring, comparing and contrasting, re-reading, summarizing, identifying the author's purpose, determining the main idea, researching new material, and applying knowledge of foreshadowing, metaphor, simile, symbolism, and other figures of speech.
- make connections between their reading and what they already know by identifying experiences that are common to themselves and to the character, information, and events depicted in the reading material, and identify what they already know and need to know about a topic before reading about it.

draft

- adjust reading strategies for different purposes: reading carefully, idea by idea; skimming and scanning; fitting materials into an organizational pattern, such as reading a novel chronologically; finding information to support particular ideas; and finding the sequence of steps in a technical publication.

- use word recognition strategies and resources (for example, phonics, context clues, picture clues, word origins, word order clues, reference guides, studying roots, prefixes, and suffixes of words).

Rationale

The goal for students at all levels is that they know and can use strategies--various ways of unlocking the meaning of words and larger blocks of text--to become successful readers. The strategies are applied in increasingly difficult reading material at each grade level. At all levels, students should be challenged to read literature and other materials that reflect and stimulate their interests and intellectual abilities. Reading from a wide variety of texts provides experience in gaining information and pleasure from diverse forms and perspectives, including from other cultures.

Grades K-4

In grades K-4, what the students know and are able to do includes

- applying word recognition strategies and comprehension strategies as they read a variety of materials: rhymes and poems, stories, directions, nonfiction material, fairy tales, and folk tales, including those from other communities and cultures.

Grades 5-8

As students in grades 5-8 extend their knowledge, what they know and are able to do includes

- applying word recognition strategies and comprehension strategies as they add technical writing, newspapers, magazines, poetry, short stories, plays, and novels to the types of reading material mentioned above. Students extend their thinking and understanding as they read stories of children from different economic, ethnic, and social backgrounds.

Grades 9-12

As students in grades 9-12 extend their knowledge, what they know and are able to do includes

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- applying word recognition strategies and comprehension strategies as they add essays, speeches, autobiographies, and first-person historical documents to the types of literature mentioned above.

For students extending their English/Language Arts education, what they know and are able to do **may** include applying word recognition skills and comprehension strategies as they explore literary criticism and literary analysis, professional and technical journals, and professional-level reading materials that match their career or academic interests.

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Civics
K-4 Content Standards

I. What Is Government and What Should It Do?

A. What is government?

B. Where do people in government get the authority to make, apply, and enforce rules and laws and manage disputes about them?

C. Why is government necessary?

D. What are some of the most important things governments do?

E. What are the purposes of rules and laws?

F. How can you evaluate rules and laws?

G. What are the differences between limited and unlimited governments?

H. Why is it important to limit the power of government?

II. What Are The Basic Values and Principles of American Democracy?

A. What are the most important values and principles of American democracy?

B. What are some important beliefs Americans have about themselves and their government?

C. Why is it important for Americans to share certain values, principles, and beliefs?

D. What are the benefits of diversity in the United States?

E. How should conflicts about diversity be prevented or managed?

F. How can people work together to promote the values and principles of American democracy?

III. How Does the Government Established by the Constitution Embody The Purposes, Values, and Principles Of American Democracy?

A. What is the United States Constitution and why is it important?

B. What does the national government do and how does it protect individual rights and promote the common good?

C. What are the major responsibilities of state governments?

D. What are the major responsibilities of local governments?

E. Who represents you in the legislative and executive branches of your local, state, and national governments?

IV. What Is the Relationship of The United States to Other Nations and to World Affairs?

A. How is the world divided into nations?

B. How do nations interact with one another?

V. What Are the Roles of the Citizen in American Democracy?

A. What does it mean to be a citizen of the United States?

B. How does a person become a citizen?

C. What are important rights in the United States?

D. What are important responsibilities of Americans?

E. What dispositions or traits of character are important to the preservation and improvement of American democracy?

F. How can Americans participate in their government?

G. What is the importance of political leadership and public service?

H. How should Americans select leaders?

I. WHAT IS GOVERNMENT AND WHAT SHOULD IT DO?

A. What is government?

Content summary and rationale

At the early elementary level, *government* can be described as the people and groups within a society with the authority to make, carry out, and enforce laws and to manage disputes about them. Understanding what government does may be initiated in early grades by having students look at the governance of the family and school as analogous to the governance of the larger community and the nation. In the family, for example, parents make rules governing the behavior of their children. They also are responsible for enforcing these rules and for settling disputes when conflicts arise about them. In schools, teachers and administrators make, carry out, and enforce rules and laws and manage disputes about them.

These fundamental ideas about government and its functions provide a basis on which children in their earliest school years can begin to develop an understanding of the formal and informal institutions and processes of government in their communities, states, and the nation.

Content standards

1. **Defining government**. *Students should be able to provide a basic description of government.*

   To achieve this standard, students should be able to

   - describe government in terms of the people and groups who make, apply, and enforce rules and laws for others in their family, school, community, and nation and who manage disputes about them, e.g.,

     - adult family members make, apply, and enforce rules for their children and manage disputes about them

     - teachers, principals, and school boards make, apply, and enforce rules and laws for their schools and manage disputes about them

     - city councils and mayors make, apply, and enforce rules and laws for their communities

     - governors and state legislatures make, apply, and enforce rules and laws for their states

- tribal governments make, apply, enforce rules and laws for tribal members in Indian country
- the national government makes, applies, and enforces rules and laws for the nation
- courts at all levels apply laws, manage disputes, and punish lawbreakers

From *National Standards for Civics and Government*, Grades K-4.
Center for Civic Education
5146 Douglas Fir Road
Calabasas, CA 91302

Geography

GEOGRAPHY CONTENT STANDARD 12:1

Seeing the World in Spatial Terms

STANDARD 1

How to use maps and other geographic representations, tools and technologies to acquire, process and report information from a spatial perspective.

By the end of twelfth grade, the student knows and understands:

1. how to use maps and other graphic representations to solve geographic problems;

2. how to use technologies to interpret physical and human systems of Earth;

3. how to use maps, globes, atlases, and other geographic tools to analyze and develop explanations and solutions to geographic problems.

Therefore, the student is able to:

A. **Produce and interpret maps and other graphics to solve geographic problems, as exemplified by being able to**

   1. Develop maps illustrating how population density varies in relation to resources, urban and rural places, and agricultural land use (e.g. maps showing population density in cattle-raising regions or maps depicting the per capita homicide rate per police district in a country's major urban centers).

   2. Correlate information from various media to transform primary data into maps, graphs, and charts (e.g. bar graphs showing wheat production in Argentina over a five-year period, or charts developed from recent census data ranking selected information on such topics as high school drop-out rates per state, literacy rates for the countries of Southwest Asia, or cartograms depicting the relative size of Latin American countries based on their urban populations).

   3. Develop maps and graphs to show the relationships within and between regions (e.g., transportation networks illustrating rail, air, and highway connections between northern and southern Europe, or time to travel-distance ratios within the northeast megalopolis in the United States).

B. **Use maps, globes, and other geographic tools to analyze world events and derive solutions to world problems, as exemplified by being able to:**

1. Develop appropriate maps, tables, graphs, charts, or diagrams to depict the geographic implications of current world events, (e.g., maps showing changing political boundaries, tables showing the distribution of refugees from an area affected by a natural disaster).

2. Modify selected characteristics of a region (e.g., population, environment, politics, economics and culture) to set long-range planning goals.

C. **Evaluate the applications of geographic tools and supporting technologies to serve particular purposes, as exemplified by being able to:**

1. Provide evidence regarding the central role of maps throughout history to study and explore Earth (e.g., maps in the exploration of the world by navigators and polar explorers such as Scott, Peary, and Henson).

2. Collect, compare, and explain the significance of maps from different sources and perspectives illustrating the same phenomena (e.g., maps developed by the media, business, industry, and military to show how a recently closed naval installation can be utilized for civilian purposes).

3. Choose and give reasons to use appropriate technologies to analyze selected geographic problems (e.g. aerial photos, satellite imagery, and geographic information systems (GIS) to determine the extent of water pollution in a harbor complex, or the range of deforestation in Madagascar).

Arts

2. Content Standard: Acting by assuming roles and interacting in improvisations

Achievement Standard:

Students:

a. imagine and clearly describe characters, their relationships, and their environments;

b. use variations of locomotor and nonlocomotor movement and vocal pitch, tempo, and tone for different characters; and

c. assume roles that exhibit concentration and contribute to the *action of classroom dramatizations based on personal experience and heritage, imagination, literature, and history.

From *National Standards for Arts Education*. Developed in coordination with the American Alliance for Theater and Education, the National Art Education Association, and the National Dance Association.

Educators National Conference Publications Sales
1806 Robert Fulton Drive
Reston, VA 22091

National Standards for Arts Education are written for all students. The Standards affirm that a future worth having depends on being able to construct a vital relationship with the arts, and that doing so, as with any subject, is a matter of discipline and study. The Standards spell out what every young American should know and be able to do in the arts. The Standards say that students:

- should be able to communicate at a basic level in the four arts disciplines--dance, music, theatre, and the visual arts;
- should be able to communicate proficiently in at least one art form;
- should be able to develop and present basic analyses of works of art;
- should have an informed acquaintance with exemplary works of art from a variety of cultures and historical periods; and
- should be able to relate various types of arts knowledge and skills within and across the arts disciplines.

Appendix III

Voluntary Model Standards and Standards Projects

Mathematics *-- Released 1989*

To order *Curriculum and Evaluation Standards for School Mathematics*, contact:

National Council of Teachers of Mathematics
Order Processing
1906 Association Drive
Reston, Virginia 22091
800-235-7566

Item # 398E1; ISBN 0-87353-273-2
Cost $25, discount for bulk orders

Arts *-- Released March 1994*

To order copies of *National Standards for Arts Education*, contact:

Music Educators National Conference Publications Sales
1806 Robert Fulton Drive
Reston, VA 22091
800-828-0229
Contact: Peggy Senko

In coordination with the American Alliance for Theater and Education, the National Art Education Association, and the National Dance Association.

Item number: 1605
Cost: $12 for members, $15 for nonmembers

Civics and Government *-- Released November 1994*

To order copies of *National Standards for Civics and Government*, contact:

Center for Civic Education
5146 Douglas Fir Road
Calabasas, CA 91302–1467
800-350-4223
Contact: Charles Quigley

(Also supported by the Pew Charitable Trusts.)

ISBN 0-89818-155-0
Cost $12.00 plus s/h, discount for bulk orders (sales tax charged in CA)

Geography *-- Released October 1994*

To order copies of *Geography for Life: National Geography Standards 1994*, contact:

National Council of Geographic Education
Geography Standards Project
P.O. Box 1640
Washington, DC 20013-1640
800-368-2728
Contact: Anthony DeSouza

In coordination with the Association of American Geographers, the National Geographic Society, and the American Geographical Society.

(Also supported by the National Endowment for the Humanities.)

History *-- Released October/November 1994*

National Center for History in the Schools at UCLA
231 Moore Hall, 405 Hilgard Avenue
Los Angeles, CA 90024
310-825-4702
Contact: Charlotte Crabtree

(Also supported by the National Endowment for the Humanities.)

Three volumes are available:

1) *National Standards for History (grades K-4)*; cost $7.95 plus s/h for educators, $12.95 plus s/h for institutions (sales tax charged in CA);

2) *National Standards for United States History (grades 5-12)*; cost $18.95 plus s/h for educators, $24.95 plus s/h for institutions (sales tax charged in CA); and

3) *National Standards for World History (grades 5-12)*, cost $18.95 plus s/h for educators, $24.95 plus s/h for institutions (sales tax charged in CA).

Science *-- Completion: late 1995*

To order copies of draft standards, contact:

National Science Education Standards Project
2101 Constitution Avenue NW
Washington, DC 20418
202-334-1399
Contact: Angelo Collins

(Also supported by the National Science Foundation, the National Aeronautics and Space Administration, and the National Institutes of Health.)

Foreign Languages *-- Completion: winter 1995-1996*

To order copies of draft standards, contact:

National Standards in Foreign Language Education
American Council on the Teaching of Foreign
Languages, Inc. (ACTFL)
6 Executive Plaza
Yonkers, NY 10701–6801
914-963-8830
Contact: Jamie Draper

(Also supported by the National Endowment for the Humanities.)

U.S. Department of Education

For general information about content standards development, contact:

Office of Educational Research and Improvement
National Institute on Student Achievement,
Curriculum and Assessment
U.S. Department of Education
555 New Jersey Avenue NW
Washington, DC 20208–5573

Appendix IV

Student Work

Increase the Length of the Rectangle and Decrease Its Width. From Kentucky Instructional Results Information System. Grade 8 -- Mathematics Question 4.

An Open-Ended Exercise in Mathematics: A 12th Grade Student's Peformance. From the California Department of Education, 1989.

Internationally Competitive Extended Answer in Geography. From *Geography for Life: National Geography Standards 1994*. Grade 8.

Improving the Design of an Experiment (Melanin) and Explaining Cycles in Nature. From *Biology: A Guide for Teachers and Students 1994*. California Department of Education. Golden State Examination.

These examples of student work are reprinted with permission from the California Department of Education and the Kentucky Department of Education.

1992-93 KIRIS COMMON OPEN-RESPONSE ITEM SCORING WORKSHEET

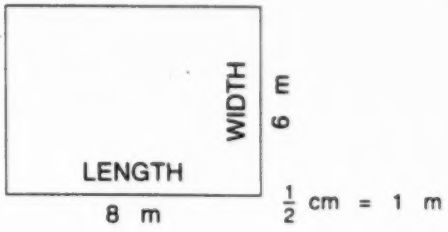
Grade 8 – Mathematics Question 4

(Learner outcomes covered by this item include: Goal 2, measurement.)

The following was included in the general instructions given for both open response sections of the mathematics test.

EXPLAIN YOUR ANSWERS THOROUGHLY. SHOW ALL YOUR WORK, COMPUTATIONS, CHARTS, GRAPHS, ETC. IN THE SPACE BELOW. YOU MAY USE A CALCULATOR ON THIS SECTION OF THE TEST.

4. Increase the length of the rectangle at the right by 50% and decrease its width by 50%.
   a. Draw and label the new rectangle to scale, using the same scale used to make the diagram.
   b. Describe the effect of this change on the area of the rectangle.



OPEN-RESPONSE 4

From KENTUCKY'S LEARNING GOALS AND LEARNER OUTCOMES

Goal 2. Students shall develop their abilities to apply core concepts and principles from mathematics, the sciences, the arts, the humanities, social studies, practical living studies, and vocational studies to what they will encounter throughout their lives.

2.10 Students demonstrate understanding of **measurement** concepts.

SCORING GUIDE

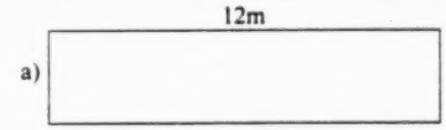
4	Response for part a shows correct dimensions (12 x 3) – rectangle drawn to scale and dimensions labeled correctly. Response for part b is correct.
3	Response for part a shows correct dimensions and accurate drawing with part b attempted with incorrect or vague solution **OR** response for part a shows correct dimensions with incorrect drawing with response for part b correct.
2	Response for part a shows correct dimensions with incorrect drawing and an incorrect response for part b **OR** response for part a incorrect with response for part b correct using information obtained from part a
1	Response demonstrates knowledge of area formula or percent of a number with/without incorrect solution **OR** solution attempt shows no direction.
0	Blank

area of original rectangle = $48m^2$
area of new rectangle = $36m^2$

The area of the new rectangle is less than the area of the original rectangle.

EXAMPLES OF STUDENT RESPONSE* FOR EACH SCORING GUIDE LEVEL

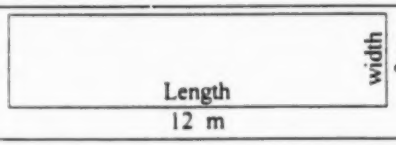
4



The current rectangle is 6 by 8. To increase the length by 50% you have to multiply 50% by 8 and you get 4. Add 4 to the 8 and get 12. To decrease the width by 50%, you have to multiply 50% by 6 and you get 3. Subtract 3 from 6 and get 3. So your new rectangle is 12 by 3. To put into scale you divide each number by 2 to find how many centimeters each side is. So 12 ÷ 2 = 6 and 3 ÷ 2 = 1½.

b) The area's for this rectangle have changed it used to be 48 m^2 and now its 36 m^2. By making increasing and decreasing the width and length, You have changed the area in this rectangle.

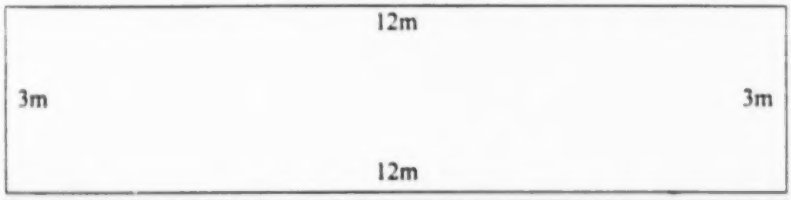
3



In effect to changing this area of the rectangle it had a great change. It made it's area much more longer and slimmer.

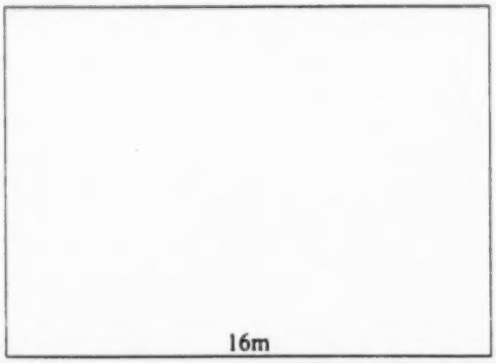
½cm = 1m

2



The square is a rectangle, what you do is bake 8 and add half of it. 4 + 8 = 12 and subtract half of six 6 – 3 – 3.

1



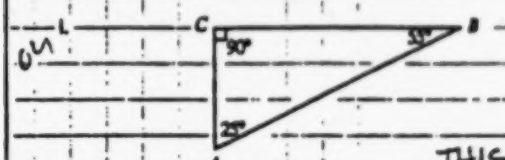
The area before only equaled, $48m^2$ 8 • 6 = 48

Now the area equals, 192m. It increased by 50%.

*** Wherever typed student responses appear, student errors have not been corrected.**

Look at these plane figures, some of which are not drawn to scale. Investigate what might be wrong (if anything) with the given information. Briefly write your findings and justify your ideas on the basis of geometric principles.

I.



90°
55°
25°
170

NOT POSSIBLE

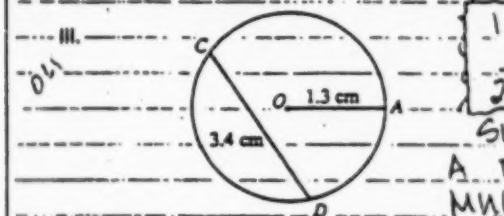
THE SUM OF THE THREE ANGLES IN A TRIANGLE SHOULD EQUAL 180°. IN THIS PARTICULAR FIGURE, THE ANGLES DO NOT ADD UP TO 180°.

II.

I CANNOT FIND ANYTHING WRONG WITH THIS FIGURE! WHEN I DRAW A PERPENDICULAR LINE FROM POINT D, THE TRIANGLE HAS SUITIBLE MEASUREMENTS. THE RECTANGLE HAS CORRECT MEASUREMENTS ALSO.

BY SUBTRACTING 12 FROM 24, I CAN GET A DISTANCE FOR A PART OF THE TRIANGLE.

III.



1.3
2
2.6

THIS IS NOT POSSIBLE. THE SEGMENT CD IS SUPPOSED TO BE SHORTER THAN A DIAMETER LENGTH. THE RADIUS (AO MULTIPLIED BY TWO IS NOT GREATER THAN THE CD. THEREFOR A FIGURE LIKE THIS CAN NOT BE RE

Reprinted, by permission, from *A Question of Thinking: A First Look at Students' Performance on Open-ended Questions in Mathematics*, copyright 1989, California Department of Education, P.O. Box 271, Sacramento, CA 95812–0271.

INTERNATIONALLY COMPETITIVE EXTENDED ANSWER, GRADE 8, EXAMPLE

QUESTION : The settlement patterns and rural land use in the upper Midwest (Wisconsin, Minnesota, North and South Dakota) are considerably different than that of the Southwest (Texas, New Mexico, and Arizona). What geographical factors explain the differences between the two regions? How have such factors affected the contemporary landscape?

ANSWER : Large numbers of Scandinavians were able to be successful farmers in the upper Midwest because the environmental conditions of that region were similar to those in their homelands. They were farmers who were involved in the intensive cultivation of the soil. The crops they grew on their farms were corn, wheat, and the hardier grains such as rye, oats, and barley. They also raised dairy cattle. Their influence today is apparent in the surnames of the people, in the names of places and physical features on the landscape, as well as in the region's annual celebrations and festivals. In the Southwest, there is a rich heritage of Spanish and Mexican settlement dating back to the 1500s. Precipitation here is less dependable than in the upper Midwest and cultivated agriculture prospers usually only with some form of irrigation. Cattle raising is an important economic activity today. Sheep and goats are grown in the more rugged highland areas. As a result, land holdings are large. Many ranches in the Southwest cover thousands of acres. Hispanic influence is as evident here as is the Scandinavian influence in the upper Midwest. Language, clothing styles, architecture, and place-names all bear the imprint of the Spanish cultural heritage. Thus, both regions reflect the impact of cultural diffusion resulting from earlier migration patterns.

From *Geography for Life: National Geography Standards 1994.*
National Council of Geographic Education
Geography Standards Project
1600 M Street, NW
Washington, DC 20036

GENERALIZED SCORING GUIDE FOR OPEN-ENDED AND SHORT-ANSWER EXTENSION QUESTIONS

Level 4 - Student work at this level demonstrates strong knowledge of the topics presented in the open-ended questions. Relevant terms are used appropriately, providing evidence of a strong understanding of scientific concepts, principles, and their interrelationships. Models, principles, or theories are used effectively to analyze problems, draw analogies, and make inferences and applications to social, ethical, or environmental issues when appropriate. In discussing the scientific issues and concepts, student work includes valid alternative explanations or draw from outside experiences. A high level of reasoning is shown in the analysis of qualitative and quantitative data and the explanations of conclusions in the context of relevant themes of science. If included, diagrams, charts, tables, graphs, and mathematical calculations are accurate. Student work thoroughly addresses all aspects of the questions and written communication is clear, coherent, and effective.

Level 3 - Student work at this level demonstrates solid knowledge of the topics presented in the open-ended questions. Relevant terms are used appropriately, showing a good understanding of scientific concepts, principles, and their interrelationships. Models, principles, or theories may be used to analyze problems, draw analogies, and make inferences and applications to social, ethical, or environmental issues when appropriate. In discussing the scientific issues and concepts, student work may include alternative explanations or draw from outside experiences. A good level of reasoning is shown in the analyses of qualitative and quantitative data, and the communication of conclusions in the context of relevant themes of science. If included, diagrams, charts, tables, graphs, and mathematical calculations may contain minor errors. Student work addresses all major aspects of the question and demonstrates good communication skills.

Level 2 - Student work at this level demonstrates basic knowledge of the topics presented in the open-ended questions and shows some understanding of scientific concepts and principles, but may not consider their interrelationships. The response may attempt to draw from outside experience as it relates the topic to social, ethical, and environmental issues. The student work shows some competence in discussing issues as they relate to the question. The analysis of qualitative and quantitative data may be incomplete. Reasoning may by flawed. If included, diagrams, charts, tables, graphs, and mathematical calculations may contain substantive errors. Student work shows an attempt to complete most aspects of the questions and demonstrates basic communication skills.

Level 1 - Student work at this level demonstrates minimal knowledge of the concepts and principles of science presented in the open-ended questions. If stating facts, making assertions, or drawing conclusions, student responses are not substantiated by qualitative and quantitative data analysis. If included, diagrams, charts, tables, graphs, and mathematical calculations are incorrect and incomplete. The application of scientific concepts to social, ethical and environmental issues is not demonstrated. Errors in expression or reasoning limit effective communication of ideas or reasoning relevant to the topic presented in the question.

Statewide Student Performance on the 1993 Open-ended and Short-answer Extension Questions

The open-ended and short-answer extension questions on the 1993 examination allowed students considerable opportunity to write about scientific situations involving biological phenomena. There were four questions which involved interpretation, extrapolation, and prediction of data presented in a graph; patterns of inheritance; critique of an experimental design; and interrelationships and interactions of energy and matter in biological systems. Most students responded to most of the questions showing understanding of the biology and scientific terminology presented in the questions. Many, however, did not provide detailed information to support their responses or demonstrate their depth of understanding.

Statewide Student Performance (Cont'd)

Several misconceptions became apparent during the scoring of the papers. Students were confused about the definition of the words "dominant" and "recessive" as they apply to genetics. Dominant is often thought to mean greater quantity, larger size, stronger, or a characteristic of personality. When discussing adaptation of a population to changing environmental stresses, students are vague in their explanation of the processes involved. Many responses seem to reflect Lamarckian rather than Darwinian theory because of the ambiguity in expression. In critiquing experimental design, students are unsure of the specific characteristics of a control. While many responses said the experimental design needed a control, students failed to describe one.

Two of the four short-answer questions are detailed below with comments on student performance. These examples are intended to provide teachers and students with concrete examples as a guide to reaching higher performance levels as described in the performance standards.

Sample Open-ended and Short-answer Questions and Comments on 1993 Statewide Performance

Questions 9 and 10 refer to the following excerpt paraphrased from an article in Lear's magazine April, 1992

There is a development that goes beyond tanning lotion. A newly synthesized hormone, MSH, works by stimulating the body's production of melanin (skin pigment). A study of 11 men showed that injections of MSH (melanocyte stimulating hormone), darkened the skin of all subjects, even though a sun screen was applied.

9. Which of the following explains the results of the study?

   (A) Only men were tested in the study.

   (B) MSH stimulated an increase in melanin production.

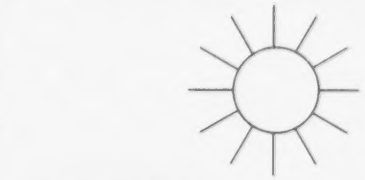
   (C) Sun screen worked with MSH to darken the skin.

   (D) Sun screen was not strong enough to protect the skin.

10. Explain how the scientific design of this experiment could be improved. (Use the answer sheet provided.)

Question 10 asked students to consider an actual experiment which was reported in a national publication. Responses showed that most students have an understanding about experimental design and could recognize flaws and suggest appropriate improvements in the experiment as it was reported.

24. Explain the relationships among these.



You can include, but are not limited to these: energy, oxygen, carbon, water. Be as thorough as you can be. (Use the answer sheet provided.)

The format of the question presented three pictures and asked for an explanation of the topics represented and their interrelationships. This allowed for a broad range of student responses depending on the knowledge they have about energy, photosynthesis, respiration, producer/consumer relationships, and chemical cycles.

Student performance showed knowledge of the topics presented in the three pictures. In the outstanding responses, students gave detailed explanations, used terms appropriately, and made appropriate connections between the three topics.

California Department of Education: Golden State Examination in Biology

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Student Responses and Reader Comments to Sample Short-answer Extension Question:
MSH Experimental Design
Level 4 Response

10. The experiment could be improved by using a control group and a larger population to be studied. The entire population including the control group and the test subjects should be comprised of a diverse population of equal amounts to ensure validity of the results. For example, the control group should have 20 elderly women and men, 20 middle aged women & men, and 20 teenagers. The test group should also contain the same type & number of subjects - Instead of placing the subjects in the sun, place both subjects in controlled environments with dim lighting. If the MSH works, the valid result should be darker skin.

In this response, the student proposed a control, a larger number of subjects, a diversity of subjects, and regulation of light exposure. The specification of age groups and "equal numbers" are examples of detailed information which exemplifies higher level performance. These recommended improvements demonstrate a strong knowledge of the principles involved in scientific experimental design and a high level of reasoning.

BEST COPY AVAILABLE

Student Responses and Reader Comments to Sample Open-ended Question:
Cycles In Nature
Level 4 Response

24. In the picture shown, the sun provides radiant and light energy for all organisms including plants (such as the oak shown) and animals (the boy shown). The plant oak uses the light energy to change carbon-dioxide and water into oxygen and glucose. Much of the glucose is then stored in the plant as well as used. The boy uses the oxygen for respiration (releasing CO_2) especially in exercise activities such as bike riding. The boy is also likely to eat foods from plants that contain the stored energy in the complex organic molecules as well as glucose. In order to do work or exercise as well, the boy's cells use the glucose by using oxygen in the process of respiration. To release a lot of energy for use, especially many ATP's. The sun also provides warmth for the boy and plant, thus a cycle is shown.

The student response demonstrates strong knowledge about the role of the sun as the ultimate source of energy, the function of plant cells in photosynthesis, and the use of energy. Interrelationships are identified by the tracing of oxygen or carbon dioxide through their respective cycles, explaining the role of glucose in respiration, and in the boy eating plants which contain stored energy. The detailed explanations and appropriate use of terms exemplifies a high level of performance.

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Appendix V

National Education Goals and Objectives

National Education Goals and Objectives

The Congress declares that the National Education Goals are the following:

School Readiness

By the year 2000, all children in America will start school ready to learn.

The objectives for this goal are that:

All children will have access to high-quality and developmentally appropriate preschool programs that help prepare children for school;

Every parent in the United States will be a child's first teacher and devote time each day to helping such parent's preschool child learn, and parents will have access to the training and support parents need; and

Children will receive the nutrition, physical activity experiences, and health care needed to arrive at school with healthy minds and bodies, and to maintain the mental alertness necessary to be prepared to learn, and the number of low-birthweight babies will be significantly reduced through enhanced prenatal health systems.

School Completion

By the year 2000, the high school graduation rate will increase to at least 90 percent.

The objectives for this goal are that:

The Nation must dramatically reduce its school dropout rate, and 75 percent of the students who do drop out will successfully complete a high school degree or its equivalent; and

The gap in high school graduation rates between American students from minority backgrounds and their non-minority counterparts will be eliminated.

Student Achievement and Citizenship

By the year 2000, all students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's modern economy.

The objectives for this goal are that:

The academic performance of all students at the elementary and secondary level will increase significantly in every quartile, and the distribution of minority students in each quartile will more closely reflect the student population as a whole;

The percentage of all students who demonstrate the ability to reason, solve problems, apply knowledge, and write and communicate effectively will increase substantially;

All students will be involved in activities that promote and demonstrate good citizenship, good health, community service, and personal responsibility;

All students will have access to physical education and health education to ensure they are healthy and fit;

The percentage of all students who are competent in more than one language will substantially increase; and

All students will be knowledgeable about the diverse cultural heritage of this Nation and about the world community.

Mathematics and Science

By the year 2000, United States students will be first in the world in mathematics and science achievement.

The objectives for this goal are that:

Mathematics and science education, including the metric system of measurement, will be strengthened throughout the system, especially in the early grades;

The number of teachers with a substantive background in mathematics and science,

The number of United States undergraduate and graduate students, especially women and minorities, who complete degrees in mathematics, science, and engineering will increase significantly.

Adult Literacy and Lifelong Learning

By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

The objectives for this goal are that:

Every major American business will be involved in strengthening the connection between education and work;

All workers will have the opportunity to acquire the knowledge and skills, from basic to highly technical, needed to adapt to emerging new technologies, work methods, and markets through public and private educational, vocational, technical, workplace, or other programs;

The number of quality programs, including those at libraries, that are designed to serve more effectively the needs of the growing number of part-time and midcareer students will increase substantially;

The proportion of the qualified students, especially minorities, who enter college, who complete at least two years, and who complete their degree programs will increase substantially;

The proportion of college graduates who demonstrate an advanced ability to think critically, communicate effectively, and solve problems will increase substantially; and

Schools, in implementing comprehensive parent involvement programs, will offer more adult literacy, parent training and life-long learning opportunities to improve the ties between home and school, and enhance parents' work and home lives.

Safe, Disciplined, and Alcohol- and Drug-Free Schools

By the year 2000, every school in the United States will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning.

The objectives for this goal are that:

Every school will implement a firm and fair policy on use, possession, and distribution of drugs and alcohol;

Parents, businesses, governmental and community organizations will work together to ensure the rights of students to study in a safe and secure environment that is free of drugs and crime, and that schools provide a healthy environment and are a safe haven for all children;

Every local educational agency will develop and implement a policy to ensure that all schools are free of violence and the unauthorized presence of weapons;

Every local educational agency will develop a sequential, comprehensive kindergarten through twelfth grade drug and alcohol prevention education program;

Drug and alcohol curriculum should be taught as an integral part of sequential, comprehensive health education;

Community-based teams should be organized to provide students and teachers with needed support; and

Every school should work to eliminate sexual harassment.

Teacher Education and Professional Development

By the year 2000, the Nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.

The objectives for this goal are that:

All teachers will have access to preservice teacher education and continuing professional development activities that will provide such teachers with the knowledge and skills needed to teach to an increasingly diverse student population with a variety of educational, social, and health needs;

All teachers will have continuing opportunities to acquire additional knowledge and skills needed to teach challenging subject matter and to use emerging new methods, forms of assessment, and technologies;

States and school districts will create integrated strategies to attract, recruit, prepare, retrain, and support the continued professional development of teachers, administrators, and other educators, so that there is a highly talented work force of professional educators to teach challenging subject matter; and

Partnerships will be established, whenever possible, among local education agencies, institutions of higher education, parents, and local labor, business, and professional associations to provide and support programs for the professional development of educators.

Parental Participation

By the year 2000, every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children.

The objectives for this Goal are that:

Every State will develop policies to assist local schools and local educational agencies to establish programs for increasing partnerships that respond to the varying needs of parents and the home, including parents of children who are disadvantaged or bilingual, or parents of children with disabilities;

Every school will actively engage parents and families in a partnership which supports the academic work of children at home and shared educational decisionmaking at school; and

Parents and families will help to ensure that schools are adequately supported and will hold schools and teachers to high standards of accountability.

Teachers and GOALS 2000:
Leading the Journey
Toward High Standards for All Students

. . . is published by the U.S. Department of Education.

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U.S. Secretary of Education

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U.S. Deputy Secretary of Education

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Kirk Winters wrote *Teachers and GOALS 2000: Leading the Journey Toward High Standards for All Students* with editorial assistance from Peter Kickbush of the Office of Intergovernmental and Interagency Affairs.

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Thanks also to the many GOALS 2000 Teacher Forum teachers whose conversations over the Internet helped shape this booklet.

Tell us what you think! We welcome your comments on the ideas in this booklet. Please send them to Barbara Murphy at the following address:

U.S. Department of Education
Office of the Secretary
600 Independence Ave., SW., Room 6124
Washington, DC 20202

June 1995

National Education Goals

By the year 2000...

All children in America will start school ready to learn.

The high school graduation rate will increase to at least 90 percent.

All students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's modern economy.

United States students will be first in the world in mathematics and science achievement.

Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Every school in the United States will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning.

The Nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.

Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children.

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